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ANNUAL REPORT

of the

DAIRY DIVISION

and

ALBERTA DAIRY CONTROL BOARD

for the Year

1982 – 1983

Alberta
AGRICULTURE

ANNUAL REPORT

OF THE

DAIRY DIVISION

AND

ALBERTA DAIRY CONTROL BOARD

FOR THE FISCAL YEAR

1982/83

REPORT OF THE DAIRY DIVISION

Headquarters Staff

DAIRY COMMISSIONER F. R. Hutchings, B.S.A., P.Ag.
ADMINISTRATIVE ASSISTANT B. M. MacIntyre, B.Ed.

HEAD, DAIRY CATTLE IMPROVEMENT BRANCH A. A. Hughes, B.Sc., P.Ag.
ASSISTANT HEAD, DAIRY CATTLE IMPROVEMENT BRANCH
B. J. Rhiness, B.Sc. (Agr.), P.Ag.
(Commenced January 1, 1983)

HEAD, DAIRY FARM INSPECTION BRANCH L. G. Johnston, B.S.A., M.B.A.
(Promoted from Regional Dairy Specialist, Airdrie, June 1, 1982)

HEAD, DAIRY PROCESSING BRANCH K. J. Waldon, B.S.A.
(Commenced July 19, 1982)

HEAD, DAIRY FARM PRODUCTION BRANCH E. S. Bristow, B.Sc., P.Ag.

PROVINCIAL CHEESE SPECIALIST R. J. Lowrie, B.Sc., M.Sc., Ph.D.

Specialists

AIRDRIE

E. Skovmose, B.Sc.
(Transferred from Edmonton, July 1, 1982)

J. S. Adams, B.Sc.

A. W. Visscher, B.Sc.
(Commenced September 1, 1982)

D. G. Lowry, B.Sc., M.A.
(Transferred from H.Q., September 1, 1982)

BARRHEAD

J. Eisen, B.Sc.

EDMONTON

T. S. Sohal, B.S.A.

FAIRVIEW

R. G. Nevills, A.A.S., B.S.A.

LETHBRIDGE

A. O. Aspeslet
(Retired December 31, 1982)

W. D. Collis, B.S.A.
(Commenced January 17, 1983)

T. J. Dow, B.Sc.

RED DEER

R. L. Hunter, B.S.A.

VERMILION

R. M. Becker, B.Sc.

WETASKIWIN

R. C. Grapentine, B.Sc.

GENERAL REVIEW

Note: All statistics are for the fiscal year April 1, 1982 to March 31, 1983.

Total milk production in the fiscal year 1982-83, including farm separated cream expressed as milk equivalent was up 10.88%.

Milk used in Fluid Class I products (Homo, 2%, Skim, Chocolate, Buttermilk, Egg Nog and 10% Cream) was up 2.32% compared to 1981-82.

Milk available for manufacturing (excluding farm separated cream) increased 13.24%.

Farm separated cream continued to decline at a rate near 11%.

The farm value of milk produced in 1982-83 was $232,113,000. The factory value of dairy products produced was $424,943,000. Estimated Federal Subsidy was $18,475,000. During the period Federal Subsidy remained at $6.03 per hectolitre; the within quota levy was $3.05 per hectolitre April 1st, 1982, $4.40 per hectolitre August 1st, 1982, and $5.14 per hectolitre January 1st, 1983, with no change to March 31, 1983; the over quota levy at $27.95 per hectolitre; and the skim-off levy on Class I production at 30.15¢ per hectolitre.

The Alberta Dairymen's Association again increased their funding for dairy advertising in Alberta and through the Dairy Bureau.

EXTENSION ACTIVITIES

Extension activities included the areas of milk production, both finished product in plant and raw product in plant and on farm, and management advisory service. Monthly newsletters were compiled and directed to dairy processors and to dairy producers; information bulletins covering specific dairy topics were made available on request.

The Graduated Entry Program was introduced into Alberta in 1974 as part of the National Market Sharing Program. Graduated Entry provides an opportunity for qualifying industrial milk and cream producers to participate in the fluid milk market.

Dairy Division staff provide advice and direction to all dairymen who have applied for Graduated Entry, concerning improvement in milk quality and upgrading of dairy buildings and equipment. Applicants are approved or denied Graduated Entry status in a final inspection completed one month before the entry dates of January 1st, May 1st and September 1st.

The Dairy Development Loan was discontinued in June 1982.

Summary of Staff Changes

May 10, 1982	-	Marianne Van Gogh Bosselaar appointed D.H.I. Technician, Barrhead
June 1, 1982	-	Lloyd Johnston promoted from Regional Dairy Specialist, Airdrie to Head, Dairy Farm Inspection Branch, Wetaskiwin
July 1, 1982	-	Egon Skovmose transferred from Edmonton to Airdrie
July 19, 1982	-	Ken Waldon appointed Head, Dairy Processing Branch, Wetaskiwin
August 5, 1982	-	Mike Slomp transferred from Dairy Division, Edmonton to Dairy Control Board, Wetaskiwin
August 26, 1982	-	Bill Wedler appointed D.H.I. Technician, Fairview
September 1, 1982	-	Andre Visscher appointed Dairy Farm Specialist, Airdrie
	-	Dennis Lowry transferred from Wetaskiwin to Airdrie
December 31, 1982	-	Tony Aspeslet retired
January 1, 1983	-	Brian Rhiness appointed Assistant Branch Head, Dairy Cattle Improvement, Wetaskiwin
January 17, 1983	-	Brian Collis appointed Regional Dairy Specialist, Lethbridge.

At March 31, 1983 the Dairy Division had -

51	Permanent Positions
5	Temporary Salary Positions
1	Temporary Salary Offset Position
4.5	Wage positions

STATISTICS

Farm value for milk and cream sold in Alberta:

Fluid Purposes	$ 120.5 Million
Industrial Purposes	81.8 Million
Cream	5.9 Million
Value of Milk & Cream Sold	$ 208.2 Million

Another $5.4 Million worth of milk and cream was used on farms. Alberta dairymen received approximately $19 Million in Federal Subsidy payments.

Total value of dairy products was approximately $425 Million.

Estimated value of selected products (expressed in millions) for the 1982-1983 fiscal year:

Butter	$ 40.3
Cheddar Cheese	24.2
Cheese Other than Cheddar	18.5
Fluid Milk	179.6
Other Fluid Products	33.8
Ice Cream	38.3
Miscellaneous - Concentrated and Powdered Milk, Cottage Cheese, Yoghurt, etc.	68.1

TABLE I ESTIMATED FARM VALUE OF ALBERTA MILK PRODUCTION APRIL, 1982 - MARCH, 1983

The quantity, price, value and utilization of milk production during April 1982 to March 1983 is reported in the following table. To indicate changes from the previous year, 1981/82 figures have been included.

	Year	Butterfat Production '000 kg	Milk Equivalent '000 ℓ	% of Total	Prices $	Value $ '000
Butterfat for Creamery Butter	1982/83	1,507	41,861 ℓ	7.7	3.933/kg	5,927
	1981/82	1,700	47,222 ℓ	9.6	3.547/kg	6,030
Milk Purchased for the Manufacture of Powder and Butter (1)	1982/83	4,494	124,846 ℓ	22.9	34.02/hl	42,478
	1981/82	3,501	97,236 ℓ	19.8	32.90/hl	31,991
Milk for Cheesemaking	1982/83		61,461 ℓ	11.3	34.05/hl	20,927
	1981/82		42,265 ℓ	8.6	32.63/hl	13,791
Milk for Concentrating and Milk & Butterfat for Ice Cream & Misc. Products (2)	1982/83		51,321 ℓ	9.4	35.81/hl	18,378
	1981/82		45,286 ℓ	9.2	34.49/hl	15,619
Milk Purchased for Fluid Purposes	1982/83		265,562 ℓ	48.7	45.38/hl	120,504
	1981/82		259,537 ℓ	52.8	43.93/hl	114,015
Kept on Farms, Skimmilk for Creamery Butter	1982/83	37,675			14.40/100kg	5,425
	1981/72	42,500			13.87/100kg	5,895
Estimated Federal Subsidy	1982/83					18,475
	1981/82					17,052
TOTAL	1982/83		545,051 ℓ			232,113
	1981/82		491,546 ℓ			187,341

(1) Includes milk used for the making of cottage cheese
(2) Does not include butterfat from creamery butter used in the manufacture of ice cream.

TABLE II ESTIMATED PRODUCTION AND VALUE OF FACTORY DAIRY PRODUCTS APRIL 1982 - MARCH 1983

The following table shows the quantity, price and value of dairy products manufactured or processed in Alberta dairy manufacturing plants during April, 1982 to March, 1983 with corresponding figures for 1981/82 added to provide a means for comparison.

	Year	Quantity ' 000	Price $	Value $ ' 000
Creamery Butter	1982/83	8,475 kg	4.762/kg	40,358
	1981/82	8,260 kg	4.290/kg	35,435
Cheddar Cheese	1982/83	4,023 kg	6.030/kg	24,259
	1981/82	3,599 kg	5.104/kg	18,369
Variety Cheese	1982/83	3,651 kg	5.082/kg	18,554
	1981/82	3,321 kg	4.385/kg	14,563
Ice Cream (1)	1982/83	27,797 ℓ	1.380/ℓ	38,360
	1981/82	27,873 ℓ	1.240/ℓ	34,563
Fluid Milk Sales	1982/83	236,303 ℓ	.760/ℓ	179,590
	1981/82	235,434 ℓ	.710/ℓ	167,158
Fluid Cream Sales	1982/83	8,790 ℓ	1.510/ℓ	13,273
	1981/82	8,968 ℓ	1.400/ℓ	12,555
Fluid Skimmilk, Buttermilk and Chocolate Drink Sales	1982/83	24,690 ℓ	.830/ℓ	20,493
	1981/82	26,529 ℓ	.770/ℓ	20,427
Skimmilk and Buttermilk in Factories	1982/83	8,406 ℓ	2.605/kg	21,898
	1981/82	7,432 ℓ	2.370/kg	17,614
Whey in Factories	1982/83	68,305 kg	Nil	Nil
	1981/82	61,619 kg	Nil	Nil
Miscellaneous Manufactured Products (2)	1982/83			68,161
	1981/82			59,180
TOTAL	1982/83			424,946
	1981/82			379,864

(1) Includes hard and soft ice cream.
(2) Includes concentrated milk products, cottage cheese, whey cheese and yoghurt.

During 1982/83 there were 3,092,312 litres of milk, valued at approximately $689,000.00, shipped out of Alberta for processing in other provinces.

DAIRY PROCESSING BRANCH

Overview

Dairy processors had little difficulty satisfying raw milk requirements for fluid or manufacturing purposes. This was the result of increased milk supply, a slightly lower rate of increase in fluid milk sales and Market Share Quota production moving from cream to milk.

A milk processing-butter manufacturing plant in southern Alberta closed at the end of the year. A new fluid milk-butter plant was officially opened in the province, replacing an old facility.

The possibility of greater volumes of milk surplus to fluid requirements and available for industrial processing, focused attention on manufacturing capability. Two large cheese factories have been expanding production and renovating progressively. Construction started on a new process cheese factory with completion scheduled for early in 1983/84.

The Dairy Processing Branch co-operated fully with other branches of the Dairy Division in the new Alberta Milk Grade and Price Program. Rapid screening procedures for milk containing inhibitors, received particular attention. Antibiotic contaminated milk was identified and rejected.

The Provincial Cheese Specialist acted as Branch Head until the permanent Branch Head commenced employment in July.

The Regional Dairy Specialist in Lethbridge retired in December 1982. A replacement was appointed in January 1983.

Regulatory

Dairy Specialist activities in regulatory functions were:

	1981/82	1982/83
Dairy Plant Inspections	488	447
Farm Inspections	702	634
Cream Grades Checked	2,332	2,332
Cream Grades Adjusted	8	7
Cream Tests Checked	1,074	860
Cream Tests Adjusted	2	17
Bulk Tank Trucks & Drivers Inspected	305	316
Bulk Tanks Levelled	28	29

The objective of our inspection program is to ensure compliance by all Alberta dairy plants and their products with existing regulations. Significant improvements in plant conditions were again realized during the 1982-83 year. The statistics on product quality showed significant improvement as some plants solved their keeping quality problems. There were some outstanding performances by individual plants in the manufacture of consistently superior quality products. The Dairy Division has quality expectations more stringent than the legal requirements. Alberta dairy plants should incorporate quality standards that surpass regulatory standards if products are to retain full acceptability to consumers after sometimes lengthy periods in the distribution system, not always under ideal storage conditions.

Milk freshly processed from dairy plants showed a 97.6% compliance rate with Health Standards, a slight decrease from 1981/82. Milk samples subjected to stressed conditions (7 days at 7^{0}C) were in compliance with Board of Health regulations at 78.5% compared to 57.2% the previous year. The Branch believes 100% compliance with Health Standards at both levels to be a realistic and attainable goal for the industry.

The Detention Program, which places the onus on the manufacturer to demonstrate that his products meet minimum requirements, if previous information indicates that they do not, continued to be effective and received full industry co-operation. Through their own quality control systems, industry generally now follows the procedures voluntarily. Instances requiring Division enforcement were few, with only small amounts of product compulsorily reprocessed or destroyed.

The Provincial Dairy Division continued to participate in the Federal In-Depth Inspection Program. Current position and improvement over last year is as follows:

	1981/82	1982/83
National average plant score	81.1%	82.4%
Alberta average plant score	85.6%	88.1%
Lowest scoring plant in Alberta scored	70.3%	77.1%
Highest scoring plant in Alberta scored	99.4%	99.9%

Licensing

Licences Issued	1981/82	1982/83
Milk & Cream Testers Form "A"	108	101
Cream Graders Form "B(C)"	82	69
Plant Milk Graders Form "B(M)"	84	61
Tank Milk Graders Form "B(M)"	280	278
Dairy Manufacturing Plant Form "C"	47	35

Margarine

Margarine produced and/or sold in the province was sampled and analyzed throughout the year and found to comply with regulations concerning compositional requirements. The initial efforts of the previous year to market imitation dairy products not permitted under the Dairy Industry Act developed into full-scale attempts. The co-operation and assistance of the Health Protection Branch, Health and Welfare Canada and Consumer and Corporate Affairs Canada, was obtained to stop the promoters in their efforts to recruit salespeople and sell the products. An advisory committee was established with representation from the producers, the processors, the Alberta Dairymen's Association Promotion Committee and the Dairy Division, to develop short term strategies and long range plans to deal with imitation dairy products. The determination of the promoters will require increased surveillance and involvement.

Extension

Dairy Specialists and the Cheese Specialist were active in advising and assisting processors in implementation of technological changes. The latest techniques for production and handling of cultures at cheese factories have been introduced at major cheese making plants, resulting in greatly improved reliability of starters as well as sizeable economic savings.

Another on-going project selects cheese for ultimate sale as aged or mature on the basis of strict compositional standards.

Three years ago, the Dairy Division in co-operation with the Alberta Dairymen's Association, initiated a voluntary Certification Program for dairy plant employees to assist in attaining improved quality through increased education and awareness. In addition to licensing of Bulk Tank Milk Graders and Milk and Cream Graders and Testers, as required by the regulations, voluntary Certification Programs were provided for the Dairy Plant Worker, Pasteurizer Operator, Plant Sanitarian, Butter Maker and Cheese Maker. Study material was available from Dairy Specialists to assist dairy plant workers in qualifying, with seminars and examinations conducted regularly in plants throughout the province. The program aims to have in Alberta, "Certified Plants" in which all staff are not only licenced as required, but have also earned the appropriate certificates. There were 106 Dairy Plant Worker Certificates issued in 1982/83, bringing the total number to 781. Certificates in specialist categories totalled 19 for the year.

Distribution of a Dairy Newsletter prepared by the Processing Branch resumed following the appointment of the Branch Head.

Research and Special Commitments

Superior flavour, storage and shelf-life properties of fluid and manufactured dairy products remained the primary quality objective of the Dairy Processing Branch. Other activities included an investigation of fat losses, and hence cheese yield, in the whey at selected cheese factories; a survey with follow-up on raw milk for Acid Degree Value (which measures potential for

rancidity) at farm bulk tank, tanker truck and plant levels; assistance in the pilot study of high somatic cell counts in producers milk. Presence of particular bacteria deterimental to milk flavour and keeping quality, and sediment and iodine levels were monitored selectively during the year. Priority was given to encouraging the local Health Units to increase the inspection coverage of soft serve and milkshake outlets.

The Dairy Division, together with Agriculture Canada, co-operate with the Alberta Dairymen's Association in the sponsorship and judging of monthly dairy product quality competitions. Competition is keen for the twelve trophies and approximately $2,600.00 in cash prizes awarded annually at the Dairymen's Convention.

DAIRY FARM INSPECTION BRANCH

Inspection and advisory services were provided to dairymen concerning milk quality, milk production, improvement and upgrading of milking facilities and equipment. The Branch staff used support services of the Dairy Farm Production Branch, Dairy Processing Branch, Animal Industry Division, Animal Health Division and the Food Laboratory, to assist in accomplishing their goals.

The Dairy Farm Inspection Branch continued to provide inspection services on behalf of Alberta Agriculture Development Corporation relating to the Dairy Development program.

The Graduated Entry program was interrupted by the declining fluid milk sales experienced during the 1982 calendar year and during 1983 to date. Milk producers who were entitled to their second and third allotments received them as planned. The program however received no additional entries. Fifynine milk producers who applied and met milk quality and premise requirements had their names applied to a waiting list.

Substantial gains were made in milk quality during 1982. Redeployment of staff and the Milk Grade and Price Program contributed to the improvements.

Non-compliance rate of 6.52% was achieved in the fluid milk sector down from 8.68% a year earlier. Industrial producers had the standards for Standard Plate Count reduced to 200,000/ml. Their non-compliance rate was 8.0%. Eighty-one point three percent (81.3%) of industrial producers' samples met fluid milk standards compared to 66.7% during 1981.

A concerted effort was made to identify producers who were experiencing mastitis problems as measured by somatic cell counts. There have been a number of interdisciplinary farm calls made respecting these producers. A continued effort in this area can be expected. The average bulk tank somatic cell count continued to decline during 1982. Fluid producers averaged 331,640/ml while industrial producers averaged 445,472/ml.

A total of 174 bulk tanks were levelled to calibration by inspection staff during 1982-83.

Of the 1,765 producers as of March 31, 1983, 1,462 were fluid and 303 were industrial. This represents a net loss of 9 producers. There was a further erosion of the number of industrial producers by 38 and an increase in the number of fluid producers by 29.

A major project to determine the incidence level of milk rancidity in the raw milk supply was undertaken. The conclusions of the study suggest that we do not have a rancidity problem as hypothesized. A few isolated incidents were identified as equipment related and thus readily corrected.

The Milk Grade and Price program, operating for a twelve month period ending March 31, 1983, recorded 255 Standard Plate Count violations, 54 Freezing Point violations and 198 Inhibitor violations, totalling 507

violations. There were 27 loads of milk destroyed due to inhibitor contamination. Funds collected from producers for grade deductions were allocated to pay for these lost tanker loads, to bulk milk graders for the time required to confirm suspicious positive loads, with the remainder redistributed to milk producers on a monthly basis via the Alberta Dairy Control Board.

During 1982-83, the dairy industry responded to our encouragement to increase their acceptance of field service responsibilities. They employed three additional field service personnel.

The following table summarizes the activities of the Dairy Farm Inspection Branch. Comparisons are based upon April 1st to March 31st basis.

	1981-82	1982-83
Number of Fluid Milk Producers (as of March 31st)	1,433	1,462
Number of Industrial Milk Producers (as of March 31st)	341	303
Total Producers	1,774	1,765
Inspections of Dairy Farm Premises	3,698	4,588
Non-Inspection Dairy Farm Calls	2,318	1,604
Total Farm Calls	6,016	5,992
Milk Samples Analyzed:		
- Fluid	19,750	
- Industrial	5,053	
Total Raw Milk Samples Analyzed	24,803	43,045
Quality of Milk Samples Analyzed		
Fluid Milk Samples in Non-Compliance (> 75,000 S.P.C.)	8.68%	6.52%
Industrial Milk Samples which met Fluid Standards	66.70%	81.30%
Industrial Milk Samples in Non-Compliance (> 2,000,000 - 1981/82 and > 200,000 - 1982/83)	12.30%	8.00%
Average Leucocyte Counts:		
Fluid:	342,000	331,640
Industrial:	445,000	445,472
Number of Grade & Price Adjustments:		
S.P.C.	*	255
Inhibitors	*	198
Freezing Points	*	54
Total Number of Violations		507

Note: *The results are not comparable from 1981/82 to 1982/83 since the Grade and Price Program commenced on January 1, 1982.

Graduated Entrants Approved	161	0

DAIRY FARM PRODUCTION BRANCH

This Branch was created in 1982 to meet the changing needs of the dairy farmers in Alberta.

Non-inspection activities of the Dairy Farm Inspection Branch and dairy extension programs of the Dairy Cattle Improvement Branch were transferred to the new Dairy Farm Production Branch.

Duties assigned to the Branch included development and administration of programs and support services to assist dairymen in planning, developing and managing viable, efficient dairy farms. Staff for the new Branch were transferred from other Branches within the Dairy Division.

Considerable assistance was provided to Alberta Agricultural Development Corporation staff and other lenders. Consultation services were provided which determined causes of individual producer's financial problems. Recommendations and follow-up management advisory services were provided to the lender and farmer client. Additional resource personnel were consulted as necessary to provide a team approach to management problem solving on individual dairy farms. Improved management on the farm improved the cash flow positions and consequently satisfied the lenders that progress was being made.

Assistance was provided to management and staff of the Alberta Dairy Control Board concerning quota policies and analyses of farm situations. Many dairymen were caught expanding production and incurring increased financial commitments while the market for dairy products was not increasing.

Production Plus Clubs and related programs were expanded. In-service training programs were conducted to encourage participation of District Agriculturists.

This is a new concept of providing extension services to producers who ordinarly do not take advantage of technological change. Small group meetings are followed up by on-farm consultation services. Short term and long term gains can be quite dramatic with this type of program.

An Individual Cow Somatic Cell Counting Pilot Project was developed. The project is limited to 60 herds in the first year. This project provides a monthly Somatic Cell Count on each cow in a herd which is already participating on a laboratory tested milk recording program in Alberta. Somatic Cell Counts assist the dairymen in determining the probability of a cow having mastitis. Mastitis is the most costly disease associated with dairy farming.

Milking equipment analyses were provided to Alberta dairy farmers. Recommendations for upgrading and improving the performance of milking equipment is a major Branch activity.

Farm Machinery Act Administration provided important assistance in ensuring the proper installation of milking equipment on dairy farms by Alberta dealers and installers.

A stainless steel welding course was developed in co-operation with the Southern Alberta Institute of Technology. Equipment dealers and installers who weld stainless steel milking equipment were encouraged to participate.

Feeding whey to dairy cattle was studied and a project undertaken to determine the feasibility of whey feeding in southern Alberta.

As more milk in Alberta is used in cheese making, proper disposal or utilization of whey becomes increasingly important.

A monthly newsletter, "Alberta Dairy Producer", is used to provide timely information to all milk and cream producers. The publication of this newsletter is a major Branch activity.

Assistance was provided in development of dairy seminars for farmers, staff and producers. Advisory services were given related to export of dairy cattle and dairy technology, dairy farm building plans and a dairy pesticide study.

Provincial and national dairy research and extension committees include representation from the Dairy Farm Production Branch.

A study of bulk tank installation on dairy farms concluded that significant errors exist in tank calibrations. A need exists to check bulk tanks for proper calibration on a regular basis (every three years). Errors in calibration can result in significant errors in payment for milk.

The Branch was unsuccessful in obtaining Departmental support in securing equipment to check bulk tanks.

DAIRY CATTLE IMPROVEMENT BRANCH

The principle activity of this Branch in 1982 was the Milk Recording Program. Dairy cattle production extension activities in co-operation with other divisions were continued during the year.

The Alberta Milk Recording Committee continued to work closely with government throughout the year in the development of a proposal for the privatization of the D.H.I. Field Services. The Alberta Milk Producers' Association agreed to act on behalf of the Committee in the negotiation of an Interim Agreement. A target date for the transfer of D.H.I. Field Services of April 1, 1984 has been established.

Discussions were held with other milk recording agencies on the co-operative development of a new and comprehensive computer management system for milk recording in Canada. A Feasibility Study was conducted by Price Waterhouse Management Consultants for Agriculture Canada. Alberta continued to express interest in the joint-venture approach to a computer system rewrite.

Milk Recording

The Alberta Dairy Herd Improvement Program (D.H.I.), a computerized milk recording and management information program, continued to be offered to herd owners throughout the province on an Owner-Sampler (non-supervised) basis. Monthly milk samples were lifted by the herd owners from individual cows and forwarded to the Central Testing Laboratory in Edmonton for butterfat determination. Samples were transferred to the laboratory by public transport or by D.H.I. Technicians.

The Supervised D.H.I. Program continued to be offered throughout the province on a limited basis. As of December 31st, 1982 there were 6,725 cows in 67 herds enrolled in the Supervised Program for an average number of cows tested per herd of 101.

Herd owners enrolled in D.H.I. were assessed an annual fee for service based on the number of cows that each tested during the year. Fees for the Owner-Sampler Program were $3.00 per cow tested during 1982 and Supervised D.H.I. fees were $9.00 per cow tested, reflecting the higher level of service provided in this program. Fees for the Owner-Sampler and Supervised programs were increased to $4.00 and $12.00 respectively on January 1, 1983. Revenue generated by the program in 1982 was $193,946.00.

D.H.I. Technicians made 9,364 farm calls to pick up milk samples, collect production and management information and provide herd owners with management assistance. The calf identification program was continued under the National Identification Program (NIP) and involved ear-tagging, colour marking and recording the pedigree information on 16,180 heifer calves born to cows enrolled in the milk recording program. NIP is an "upgrading" program co-ordinated by the Joint Dairy Breeds of Canada (J.D.B.C.). Since its introduction as the basic calf identification program in Alberta on April 1st, 1976, 94,130 cows and heifer calves have been NIP identified by D.H.I. Technicians.

There were 743 herds on test in 1982, an increase of 22 herds over the previous year. A total of 93 new herds with 5,094 cows enrolled in the program while 74 herds with 3,206 cows discontinued the service. The continuing tendency toward larger herds is reflected in the average number of cows which showed a record high of 80.5 cows per herd, an increase of 4.0 cows per herd over 1981. In addition to the 743 herds, 12 herds were direct computer transfers from one owner to another.

An overall total of 59,844 cows were enrolled in the D.H.I. Milk Recording Program in 1982, resulting in a new increase of 4,668 over the previous year.

The Central Testing Laboratory, O.S. Longman Building, tested a total of 410,713 Dairy Herd Improvement samples from January 1st, 1982 to December 31st, 1982.

Summary

D.H.I. herds increased in milk production during the year by 24 kg. (52.9 pounds) for an average of 6,068 kg. (13,377 pounds) of milk per cow-year; butterfat production increased to 213 kg. (469.5 pounds).

TABLE I

ALBERTA D.H.I. SUPERVISED HERDS ONLY

AVERAGE HERD SIZE, BCA'S AND YIELD IN SUPERVISED HERDS: BY BREED

Breed	No. of Herds	Average # Cows Tested	Milk BCA	Fat BCA	Milk Yield	Fat Yield
Holstein	61	104	151	140	7,081 kg. (15,611 lbs.)	245 kg. (540 lbs.)
Jersey	3	77	169	151	4,987 kg. (10,995 lbs.)	239 kg. (527 lbs.)
Brown Swiss	1	60	167	164	6,477 kg. (14,279 lbs.)	260 kg. (573 lbs.)
Ayrshire	1	102	139	132	4,721 kg. (10,408 lbs.)	179 kg. (39[illegible] lbs.)
Guernsey	1	33	158	167	5,839 kg. (12,873 lbs.)	288 kg. (635 lbs.)
Average of All Breeds	67	101	152	141	6,965 kg. (15,355 lbs.)	244 kg. (538 lbs.)

Date of Source: December 31, 1982

TABLE II

1982 ALBERTA D.H.I. OWNER-SAMPLER HERDS INCLUDING ROP-DHI

AVERAGE HERD SIZE, BCA'S AND YIELDS BY BREED

Breed	Total No. of Herds	Total # Cows Tested	-- AVERAGE OF HERDS WITH ESTABLISHED BCA'S -- Milk BCA	Fat BCA	Milk Yield	Fat Yield
Holstein	632	51,242	128	119	6,046 kg. (13,329 lbs.)	211 kg. (465 lbs.)
Jersey	23	1,151	132	117	4,852 kg. (10,697 lbs.)	197 kg. (434 lbs.)
Brown Swiss	7	234	118	125	4,957 kg. (10,928 lbs.)	210 kg. (463 lbs.)
Ayrshire	9	482	144	135	5,278 kg. (11,636 lbs.)	201 kg. (443 lbs.)
Other	4	119	-	-	3,052 kg. (6,728 lbs.)	133 kg. (293 lbs.)
Total:	675					
Average of All Breeds		79	128	119	6,008 (13,245 lbs.)	211 kg. (465 lbs.)

Date of Source: December 31, 1982

TABLE III

HERDS ON COMPUTERIZED D.H.I. SERVICE BY REGION - 1982

Region	Total Herds	Cows Tested	Herds with Established BCA's*					
			# of Herds	Cows Tested	# Cows With BCA	BCA Milk	BCA Fat	Average Production kg. (lbs.) Milk	Fat
1-Lethbridge	91	10,397	76	9,037	6,876	137	125	6,452 (14,224)	221 (487)
2-Calgary	69	5,577	60	5,010	3,656	135	125	6,150 (13,558)	217 (478)
3-Red Deer	250	18,863	213	16,231	12,117	128	122	6,005 (13,238)	214 (472)
4-Vermilion	68	5,023	56	4,315	3,217	126	116	5,962 (13,144)	207 (456)
5-Edmonton	243	17,947	214	16,413	12,286	129	120	6,033 (13,300)	212 (467)
6-Peace River	22	2,037	17	1,797	1,380	143	130	6,777 (14,940)	228 (503)
	743	59,844	636	52,803	39,532	131	122	6,126 (13,505)	215 (474)

*Breed Class Averages and statistics are based only on herds on test over one year where 60% of the cows have completed a lactation.

TABLE IV

MILK RECORDING - 3 YEAR SUMMARY **

	1980	1981	1982
Number of herds under test	679	721	743
Number of cows under test	49,089	55,176	59,844
Average number of cows tested per herd	72.3	76.5	80.5
Number of cow-years	37,983.2	43,362.2	46,837.8
Average number of cow-years per herd	55.9	60.1	63.0
Average BCA milk all breeds	127	128	131
Average production milk - kg.	6,024	6,044	6,068
- (lbs.)	(13,280)	(13,324)	(13,377)
Average BCA fat all breeds	119	120	122
Average production butterfat - kg.	211	211	213
- (lbs.)	(465.2)	(465.2)	(469.5)
Average test (%)	3.503	3.49	3.51

** Herd averages on the basis of cow years. The total number of cows on test during the year was used in determining the herd average. Where a new cow was placed on test, or a cow was sold or died, only that part of the year in which she produced was used.

Reports and Competitions

Herd owners in the computerized D.H.I. Program receive monthly production-management reports which give them an updated rolling herd average. Semi-annual summaries report total production by completed lactations on an individual cow basis; an estimated breeding value is determined for each cow. Certificates of production are issued to herd owners enrolled in the Supervised D.H.I. Program. Production reports on all D.H.I. herds are forwarded to their respective regional and District Agriculturist's office on a regular basis.

D.H.I. records are used in the National Sire Proving Program. Breed associations received official records of production for all cows completing records in the Supervised D.H.I. Program.

The D.H.I. data base continued to be used as a source of information for research and management related investigations.

D.H.I. records management workshops were held throughout the province with approximately 50% of the D.H.I. herd owners participating. The workshops featured the use of D.H.I. records in production efficiency and financial management.

The D.H.I. computerized program also provides all of the necessary data for scoring the producer competitions which are conducted annually by the Alberta Dairymen's Association in recognition of outstanding achievement.

TABLE III

Milk Production and Utilization

Year	Total Milk Production in Millions of Units	Creamery Butter	Dairy Butter	Cheese	Miscellaneous Factory Products	Milk and Cream Consumed	Farm Fed Animals
		Percentage of Total Milk					
1925	923 lb	50.6	24.5	1.7	.5	22.7(1)	
1930	1,077 lb	38.5	25.8	1.2	.9	25.1	8.5
1935	1,384 lb	39.1	22.0	1.3	.4	25.6	11.6
1940	1,468 lb	47.6	20.0	2.1	1.7	21.6	7.0
1945	1,461 lb	55.6	7.0	3.1	3.1	24.5	6.7
1950	1,375 lb	53.2	8.1	2.4	4.6	25.6	6.1
1955	1,438 lb	51.0	4.6	1.7	5.5	32.3	4.9
1960	1,650 lb	52.9	3.5	1.3	7.2	30.0	5.1
1965	1,641 lb	52.1	1.6	1.7	8.1	30.7	5.8
1970	1,529 lb	44.9	1.3	2.8	11.2	33.6	6.2
1973	1,396 lb	39.0	0.8	5.4	12.8	35.4	6.6
1974	1,284 lb	34.1	---	6.5	13.5	38.9	7.0
1975	1,276 lb	37.7	---	7.5	12.0	35.7	7.1
1976 fiscal	1,273 lb	31.6	---	8.3	12.5	38.4	9.2
1977 fiscal	1,251 lb	30.7	---	10.3	10.4	41.8	6.8
1978 fiscal	426 hl	27.6	---	11.2	10.6	44.1	6.5
1979 fiscal	450 hl	33.1	---	12.3	11.4	43.2(2)	---
1980 fiscal	480 hl	37.9	---	11.2	10.6	40.3(2)	---
1981 fiscal	528 hl	29.4	---	5.6	9.2	52.8(2)	---
1982 fiscal	545 hl	30.6	---	11.3	9.4	48.7(2)	---

(1) Includes milk otherwise used.
(2) Milk Farm Home Consumed amount usually included in this figure is no longer available.

TABLE IV

Total Value of Dairy Products*

	$ '000		$ '000
1906	2,000	1965	69,080
1910	7,856	1970	82,849
1915	15,897	1973	104,535
1920	34,000	1974	126,114
1925	23,002	1975	154,739
1930	18,676	1976 fiscal	180,047
1935	14,253	1977 fiscal	200,333
1940	17,324	1978 fiscal	228,457
1945	29,325	1979 fiscal	241,628
1950	42,513	1980 fiscal	322,324
1955	51,942	1981 fiscal	379,877
1960	65,187	1982 fiscal	424,943

* Total value of all manufactured and processed products including that portion of milk and by-products utilized on farms.

TABLE V

Farm Value of Milk Production

	$ '000		$ '000
1950	33,922	1976 fiscal	129,473
1955	39,713	1977 fiscal	145,220(2)
1960	48,732	1978 fiscal	153,570
1965	51,170	1979 fiscal	159,322(3)
1970	62,883(1)	1980 fiscal	192,459
1973	78,484	1981 fiscal	226,491
1974	101,185	1982 fiscal	232,113
1975	116,826		

(1) From 1970 forward, includes Federal Government Subsidy
(2) From 1977 forward, price is F.O.B. Factory rather than F.O.B. Farm
(3) Total no longer includes values of Milk Farm Home Consumed and Fed Farm Animals. The comparative 1978 figure exluding these two values is 140,465.

TABLE VI

Value of Factory Dairy Products

Year	Creamery Butter	Cheddar Cheese(1)	Specialty Cheeses	Ice Cream	Fluid Milk and Cream	Skimmilk, Buttermilk and Whey	Miscellaneous Manufactured Products	Total
	Thousands of Dollars							
1940	6,651	394	Nil	810	3,212	204	435	11,706
1945	11,390	982	Nil	1,250	6,231	432	1,166	21,451
1950	16,809	1,113	Nil	2,813	10,094	224	1,764	32,817
1955	18,041	767	Nil	4,346	16,432	520	2,488	42,594
1960	23,265	671	Nil	5,905	19,315	764	4,615	54,535
1965	19,641	882	Nil	6,605	22,028	1,172	7,894	58,222
1970	19,987	1,750	Nil	9,747	28,262	1,636	10,605	71,987
1973	17,550	3,456	Nil	12,474	38,184	2,779	19,092	93,535
1974	16,538	4,820	Nil	14,889	55,177	3,154	20,973	115,551
1975	23,895	7,194	2,406	17,611	61,799	6,180	23,692	142,777
1976(2)	20,921	7,693	3,252	18,461	70,558	14,484	24,304	159,673
1977	23,799	9,604	4,557	18,796	79,940	17,088	26,784	180,568
1978	21,049	11,063	6,708	20,107	104,867	17,029	28,275	209,098
1979	23,821	11,056	9,111	19,996	125,317	21,026	31,301	241,628
1980	27,992	15,135	12,194	31,587	181,958	12,927	40,531	322,324
1981	35,435	18,369	14,576	34,563	200,140	17,614	59,180	379,877
1982	40,358	24,259	18,554	38,360	213,353	21,898	68,161	424,943

(1) Factory Cheese value includes net increase in processing.
(2) Fiscal year from 1976 forward.

TABLE VII

The Production and Value of Ice Cream

Year	Production '000	Price	Value $ '000
1930	637 gal	$ 1.21/gal	768
1935	375 gal	1.20/gal	452
1940	743 gal	1.09/gal	810
1945	1,042 gal	1.20/gal	1,250
1950	1,967 gal	1.43/gal	2,813
1955	2,716 gal	1.60/gal	4,346
1960	3,623 gal	1.63/gal	5,905
1965	5,242 gal	1.26/gal	6,605
1970	5,634 gal	1.73/gal	9,747
1973	6,332 gal	1.97/gal	12,474
1974	6,588 gal	2.26/gal	14,889
1975	6,671 gal	2.64/gal	17,611
1976 fiscal	6,713 gal	2.75/gal	18,461
1977 fiscal	6,835 gal	2.75/gal	18,796
1978 fiscal	31,859 ℓ	0.631/ℓ	20,107
1979 fiscal	30,343 ℓ	0.659/ℓ	19,996
1980 fiscal	31,906 ℓ	0.990/ℓ	31,587
1981 fiscal	27,873 ℓ	1.240/ℓ	34,563
1982 fiscal	27,797 ℓ	1.380/ℓ	38,360

TABLE VIII

The Production and Value of Creamery Butter

Year	Creameries	Production '000	Av. Output Per Creamery '000	Selling Value Total $ '000	Selling Value Cents
1915	57	7,544 lb	132 lb	2,021	26.79/lb
1920	53	11,821 lb	223 lb	6,556	55.45/lb
1925	99	19,630 lb	198 lb	6,959	35.45/lb
1930	92	17,717 lb	192 lb	4,968	28.04/lb
1935	97	23,095 lb	238 lb	4,589	19.90/lb
1940	95	29,797 lb	314 lb	6,651	22.32/lb
1945	91	34,693 lb	381 lb	11,390	32.83/lb
1950	92	31,238 lb	340 lb	16,809	53.81/lb
1955	89	31,326 lb	352 lb	18,041	57.59/lb
1960	86	37,338 lb	434 lb	23,265	62.31/lb
1965	80	36,562 lb	457 bl	19,641	53.72/lb
1970	56	29,311 lb	523 lb	19,987	68.19/lb
1973	46	23,282 lb	506 lb	17,550	75.38/lb
1974	33	18,695 lb	567 lb	16,538	88.46/lb
1975	31	20,587 lb	664 lb	23,895	116.07/lb
1976 fiscal	22	17,843 lb	811 lb	20,921	117.25/lb
1977 fiscal	20	18,342 lb	917 lb	23,799	129.75/lb
1978 fiscal	19	6,946 kg	366 kg	21,049	303.03/kg
1979 fiscal	17	7,117 kg	419 kg	23,821	334.71/kg
1980 fiscal	16	7,863 kg	491 kg	27,992	356.00/kg
1981 fiscal	13	8,260 kg	635 kg	35,435	429.00/kg
1982 fiscal	13	8,475 kg	652 kg	40,358	476.20/kg

TABLE IX — The Production and Value of Cheddar and Variety Cheeses

Year	Factories		Production '000			Av. Output Per Factory '000			Selling Value Total $ '000		Selling Value Cents	
	C	V	C	V		C	V		C	V	C	V
1915	13		382		lb	29		lb	68		17.93	/lb
1920	7		399		lb	57		lb	110		27.70	/lb
1925	14		1,474		lb	105		lb	307		20.80	/lb
1930	8		1,035		lb	129		lb	175		16.94	/lb
1935	11		1,365		lb	124		lb	168		12.33	/lb
1940	18		2,706		lb	150		lb	386		14.25	/lb
1945	18		3,985		lb	221		lb	903		22.67	/lb
1950	14		2,940		lb	210		lb	1,030		35.05	/lb
1955	10		2,151		lb	215		lb	694		32.25	/lb
1960	7		1,760		lb	261		lb	671		39.55	/lb
1965	6		2,188		lb	365		lb	882		40.31	/lb
1970	6	3	3,357	155	lb	560	52	lb	1,750	---	52.13	--- /lb
1973	7	4	4,768	913	lb	681	228	lb	3,456	---	72.48	--- /lb
1974	6	6	4,884	2,186	lb	814	364	lb	4,820	---	98.69	--- /lb
1975	7	6	6,307	2,406	lb	901	401	lb	7,914	2,296	113.35	95.43/lb
1976*	7	6	6,872	3,161	lb	982	510	lb	7,693	3,193	111.95	101.02/lb
1977	6	6	8,013	4,557	lb	1,335	759	lb	9,604	5,462	119.86	119.86/lb
1978	6	8	3,935	2,386	kg	656	298	kg	11,063	6,708	281.14	281.14/kg
1979	6	11	3,649	3,007	kg	608	273	kg	11,056	9,111	302.99	302.99/kg
1980	6	11	3,921	3,159	kg	654	287	kg	15,135	12,194	308.60	308.60/kg
1981	6	11	3,599	3,321	kg	600	302	kg	18,369	14,563	510.40	438.52/kg
1982	6	10	4,023	3,651	kg	671	365	kg	24,259	18,554	603.00	508.18/kg

*Fiscal year from 1976 forward.

TABLE X — Butterfat Received as Cream on a Monthly Basis

	1977	1978	1979	1980	1981	1982
	Percentage Change from Previous Year					
April	-10.9	-15.7	-12.1	-11.96	-18.00	- 4.35
May	- 9.9	-18.4	- 6.9	- 9.24	-23.16	-12.55
June	- 9.9	-13.4	-29.4	-14.32	-11.30	-15.20
July	- 8.4	-15.3	- 8.8	-12.57	-17.58	-14.20
August	+17.1	-15.4	-24.6	-18.23	-19.45	- 4.39
September	-24.8	-14.9	-16.0	- 4.64	-19.85	- 7.71
October	- 5.8	-11.7	- 6.9	-16.15	-16.93	-10.16
November	+17.4	-14.2	-27.4	-24.48	- 4.93	- 6.75
December	-29.0	- 8.1	-24.0	- 9.91	- 6.81	-16.47
January	-15.4	- 9.9	-16.5	-19.14	- 9.81	-13.09
February	-14.3	-13.9	-19.9	-19.47	- 9.43	-15.76
March	-16.8	-11.2	-31.3	-11.14	- 6.17	-18.63
Total Year	- 9.1	-14.5	-18.9	-13.86	-15.11	-11.37

TABLE XI

Milk Cow Numbers and Average Production

Year	No. Cows June 1st	Average Milk	Production Butterfat
1925	391,100	2,957 lb	106.5 lb
1930	351,600	3,118 lb	112.2 lb
1935	453,800	3,125 lb	112.5 lb
1940	370,600	3,960 lb	142.6 lb
1945	344,000	4,247 lb	152.9 lb
1950	297,800	4,617 lb	166.2 lb
1955	285,000	5,044 lb	176.5 lb*
1960	279,000	5,915 lb	207.0 lb
1965	262,000	6,264 lb	219.2 lb
1970	198,000	7,721 lb	270.2 lb
1973	169,000	8,265 lb	289.3 lb
1974	169,000	7,595 lb	265.8 lb
1975	170,000	7,507 lb	262.7 lb
1976	152,000	8,376 lb	293.2 lb
1977	155,000	8,072 lb	282.5 lb
1978	148,000	2,878 ℓ	103.6 kg
1979	135,000	3,333 ℓ	119.9 kg
1980	138,000	3,478 ℓ	125.2 kg
1981	142,000**	3,718 ℓ	133.8 kg
1982	158,000***	3,450 ℓ	124.2 kg

* From 1955 forward, average butterfat test 3.5%; previous years was 3.6%.
** Census figure as of January 1981.
*** Census figure as of January 1982.

Alberta Margarine Statistics as reported by Bureau of Statistics, Alberta Department of Industry & Commerce are no longer available.

ALBERTA DAIRY CONTROL BOARD

BOARD MEMBERS

J. R. Gylander (Chairman) --- Wetaskiwin
J. M. Bentley (Member) ------ Edmonton
A. Kastelic (Member) -------- Sangudo
L. Henderson (Member) ------- Lacombe
Mrs. J. Chorny (Member) ----- Calgary
M. Dordevic ----------------- Secretary-Manager

Alberta Dairy Control Board Inspectors

Calgary area	-	B. A. Allen
Edmonton area	-	W. Vonk
Lethbridge area	-	D. G. Thompson

The Dairy Board, operating under the Dairy Board Act, met its responsibilities in administration of fluid, industrial milk and cream sectors. These responsibilities included the licensing of dairy producers, processors, and distributors of fluid products; setting and adjusting fluid milk quotas; regulating time and payment to producers; and in general, governing the sale of milk in Alberta.

The Board is responsible for the operation of the ALBERTA MILK MARKET SHARING plan which is an industrial milk plan entered into by Federal and Provincial authorities. The Board is a member of the Canadian Milk Supply Management Committee, a body responsible for the development of the national dairy policy.

The number of active dairy producers - fluid milk, industrial milk and cream - as at March 31, 1983 totalled 3,545 and the total provincial dairy production was up by 2.67% from the previous fiscal year. Fluid milk production increased by 4.70% whereas industrial milk and cream production decreased by 3.91% and 11.38% respectively. Demand for fluid milk sales levelled off showing a slight decrease of .21% from the previous year.

The Board operated a fluid milk equalization pool for Alberta fluid milk producers. This plan successfully completed its eighth year of operation and enabled producers to share in the sales of fluid milk returns regardless of location or source of sales.

The graduated entry plan operated successfully and during the fiscal year a total of 31 industrial producers entered the fluid sector which brings a total of 930 graduated entrants since the start of this program in 1975.

Producers' financial returns for fluid milk, industrial milk and farm separated cream advanced at intervals during the year. Fluid milk prices increased $ .98 per hectolitre July 1, 1982 and $ .98 per hectolitre on February 1, 1983 ending the fiscal year at $46.17 per hectolitre. Industrial milk advanced $1.41 per hectolitre August 1, 1982; $ .38 per hectolitre January 1, 1983. Churning cream prices were also increased August and January for total increases of 27 cents per kilogram.

Board staff maintained an audit program of all fluid processors together with inspections to maintain and ensure compliance with regulations issued under the authority of the Alberta Dairy Board Act.

TABLE 1

NUMBER OF MILK PRODUCERS AND DISTRIBUTORS AT MARCH 31, 1983, 1982, 1981

	1983 Producers	1983 Distributors	1982 Producers	1982 Distributors	1981 Producers	1981 Distibutors
Calgary	568	3	547	3	461	3
Camrose	65	1	65	1	53	1
Crowsnest Pass	11	1	12	1	9	1
Edmonton	448	3	434	3	428	3
Lethbridge	41	2	44	2	42	2
Medicine Hat	11	2	11	2	11	2
Red Deer	-	3	-	3	-	3
Other Areas	314	5	328	5	323	7
Total	1,458	20	1,441	20	1,327	22

Note 1: 1983 Average daily shipment per producer was 937 litres.

Note 2: The above 1,458 fluid producers includes those delivering milk to plants processing other dairy products.

TABLE 2

FLUID MILK CONSUMPTION IN LITRES 1977/78 - 1982/83 (April 1 - March 31)

AREAS	1982/83	1981/82	1980/81	1979/80	1978/79	1977/78
Southern	21,995,564	20,021,274	19,217,134	18,859,270	17,735,481	16,868,858
Calgary *	105,848,724	106,087,722	105,995,094	102,954,491	94,951,404	84,444,588
North	134,325,889	136,328,882	130,717,693	121,907,598	110,538,559	104,404,570
Total	262,170,177	262,437,878	255,929,921	243,721,359	223,225,444	205,718,016

* Includes Central Area

TABLE 3

FLUID CREAM CONSUMPTION IN LITRES, APRIL 1 - MARCH 31, 1977/78 - 1982/83

AREAS	1982/83	1981/82	1980/81	1979/80	1978/79	1977/78
Southern	554,631	489,579	470,147	455,063	473,543	499,891
Calgary	3,895,806	3,870,624	3,635,847	3,396,215	2,972,942	2,627,554
North	4,339,155	4,424,338	4,190,705	3,830,222	3,656,463	3,381,107
Total	8,789,592	8,784,541	8,296,699	7,681,500	7,102,948	6,508,552

* Includes Central Area

TABLE 4

MONTHLY SALES OF FLUID MILK APRIL 1982 TO MARCH 1983 IN LITRES

HOMO, 2% SKIM, CHOCOLATE, BUTTERMILK AND EGG NOG

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	1,768,699	1,623,943	1,617,748	1,670,081	1,715,577	1,860,073	1,970,062	2,043,632	1,991,119	1,898,008	1,778,863	2,057,759
Calgary	9,265,145	8,687,674	8,760,572	8,914,847	8,501,920	8,739,940	8,789,533	9,302,417	9,039,424	8,569,666	7,937,146	9,340,440
North	11,739,762	10,803,884	10,824,405	10,848,943	10,601,987	11,138,783	11,249,249	11,823,349	11,638,370	11,230,189	10,438,006	11,988,962
Total	22,773,606	21,115,501	21,202,725	21,433,871	20,819,484	21,738,796	22,008,844	23,169,398	22,668,913	21,697,863	20,154,015	23,387,161
Cumulative	22,773,606	43,889,107	65,091,832	86,525,703	107,345,187	129,083,983	151,092,827	174,262,225	196,931,138	218,629,001	238,783,016	262,170,177

TABLE 5

MONTHLY SALES OF HOMO MILK APRIL 1982 TO MARCH 1983, IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	475,392	446,979	453,299	470,760	484,281	511,565	539,752	551,597	533,773	508,639	472,223	543,783
Calgary	2,536,057	2,366,003	2,401,222	2,490,373	2,374,310	2,337,589	2,317,678	2,404,169	2,287,203	2,241,781	2,072,079	2,417,724
North	3,538,243	3,224,173	3,262,428	3,317,746	3,241,529	3,315,065	3,324,293	3,485,220	3,400,860	3,372,479	3,104,277	3,531,684
Total	6,549,692	6,037,155	6,116,949	6,278,879	6,100,120	6,164,219	6,181,723	6,440,986	6,221,836	6,122,899	5,648,579	6,493,191
Cumulative	6,549,692	12,586,847	18,703,796	24,982,675	31,082,795	37,247,014	43,428,737	49,869,723	56,091,559	62,214,458	67,863,037	74,356,228

TABLE 6

MONTHLY SALES OF 2% PARTLY SKIMMED MILK APRIL 1982
TO MARCH 1983 IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	1,145,427	1,033,769	1,022,262	1,050,322	1,075,486	1,181,271	1,255,659	1,303,333	1,254,570	1,223,067	1,148,541	1,332,207
Calgary	5,756,367	5,375,710	5,406,020	5,497,227	5,232,934	5,479,697	5,556,022	5,840,134	5,533,196	5,450,813	5,069,661	5,956,273
North	7,135,139	6,592,000	6,563,158	6,578,756	6,439,132	6,832,684	6,917,975	7,226,339	6,943,469	6,860,475	6,381,120	7,369,605
Total	14,036,933	13,001,479	12,991,440	13,126,305	12,747,552	13,493,652	13,729,656	14,369,806	13,731,235	13,534,355	12,599,322	14,658,085
Cumulative	14,036,933	27,038,412	40,029,852	53,156,157	65,903,709	79,397,361	93,127,017	107,496,823	121,228,058	134,762,413	147,361,735	162,019,820

TABLE 7

MONTHLY SALES OF SKIM MILK APRIL 1982 - MARCH 1983 IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	50,519	48,232	47,124	45,726	47,803	52,845	56,640	58,574	52,897	57,480	55,475	66,004
Calgary	397,083	386,520	385,567	360,554	344,690	373,997	381,405	411,634	363,780	396,256	378,760	446,013
North	416,579	378,655	380,416	356,626	350,412	392,907	407,718	419,598	388,577	423,664	408,674	474,799
Total	864,181	813,407	813,107	762,906	742,905	819,749	845,763	889,806	805,254	877,400	842,909	986,816
Cumulative	864,181	1,677,588	2,490,695	3,253,601	3,996,506	4,816,255	5,662,018	6,551,824	7,357,078	8,234,478	9,077,387	10,064,203

TABLE 8

MONTHLY SALES OF CHOCOLATE MILK APRIL 1982-MARCH IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	83,223	80,655	78,621	85,062	89,754	98,848	103,306	106,423	92,630	95,818	89,731	100,849
Calgary	513,374	496,521	498,931	493,881	479,429	484,419	466,589	484,709	400,445	428,856	361,615	453,924
North	550,644	506,430	508,130	488,277	466,766	507,934	487,590	506,074	445,280	489,713	460,226	513,831
Total	1,147,241	1,083,606	1,085,682	1,067,220	1,035,949	1,091,201	1,057,485	1,097,206	938,555	1,014,387	911,572	1,068,604
Cumulative	1,147,241	2,230,847	3,316,529	4,383,749	5,419,698	6,510,899	7,568,384	8,665,590	9,604,145	10,618,532	11,530,104	12,598,708

TABLE 9

MONTHLY SALES OF BUTTERMILK APRIL 1982-MARCH 1983 IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	14,138	14,308	16,442	18,211	18,253	15,544	14,705	13,673	12,984	12,726	12,960	14,916
Calgary	62,264	62,776	68,363	72,357	70,269	63,772	60,888	61,117	56,460	55,273	54,683	65,120
North	99,133	98,138	110,249	107,538	104,100	90,137	93,025	90,601	86,345	83,888	83,600	98,996
Total	175,535	175,222	195,054	198,106	192,622	169,453	168,618	165,391	155,789	151,887	151,243	179,032
Cumulative	175,535	350,757	545,811	743,917	936,539	1,105,992	1,274,610	1,440,001	1,595,790	1,747,677	1,898,920	2,077,952

TABLE 10

MONTHLY SALES OF FLUID CREAM APRIL 1982-MARCH 1983 IN LITRES

AREAS	April	May	June	July	August	September	October	November	December	January	February	March
South	44,190	40,360	41,114	45,654	46,131	46,055	50,758	48,938	56,610	41,404	42,774	50,643
Calgary	343,614	324,860	323,252	343,815	333,058	311,160	314,629	325,535	361,102	297,404	278,226	339,151
North	380,776	354,113	347,806	357,317	369,500	337,189	360,542	371,276	414,483	325,398	326,782	393,973
Total	768,580	719,333	712,172	746,786	748,689	694,404	725,929	745,749	832,195	664,206	647,782	783,767
Cumulative	768,580	1,487,913	2,200,085	2,946,871	3,695,560	4,389,964	5,115,893	5,861,642	6,693,837	7,358,043	8,005,825	8,789,592

TABLE 11

FLUID MILK PURCHASES BY DISTRIBUTION PLANTS 1978/79, 1979/80, 1980/81, 1981/82, 1982/83 IN LITRES

AREAS	1982/83	1981/82	1980/81	1979/80	1978/79
Southern	38,506,898	38,019,241	31,968,375	28,632,235	24,911,899
Calgary *	209,729,150	187,415,273	176,354,297	155,706,728	128,680,420
Edmonton	154,161,350	149,379,649	124,554,877	117,279,628	113,743,524
TOTAL CONTROLLED AREAS	402,397,398	374,814,163	332,877,549	301,618,591	267,335,843
** OTHER AREAS	22,607,713	26,144,328	26,723,136	27,140,099	25,852,545
TOTAL ALL AREAS	425,005,111	400,958,491	359,600,685	328,758,690	293,188,388

* Includes Central Area

** Other areas do not include 78,183,885 litres of milk purchased by 8 cheese plants and powder plants with graduated entrants.

TABLE 12

TOTAL SALES OF MILK AND CREAM IN LITRES BY SIZE OF CONTAINERS APRIL 1982, TO MARCH 1983.

	Fluid Milk Products	% of Total	Cream	% of Total	Total all Products	% of Total
20 litres	14,147,110	5.42	224,300	2.55	14,371,410	5.32
4 litres	30,176,158	11.55			30,176,158	11.18
2 litres	174,464,120	66.80			174,464,120	64.63
1 litre	27,959,504	10.71	1,807,330	20.56	29,766,834	11.03
500 ml	4,311,895	1.65	2,756,684	31.36	7,068,579	2.62
250 ml	9,058,124	3.47	1,400,718	15.94	10,458,842	3.87
Creamer			2,600,560	29.59	2,600,560	0.96
Egg Nog	1,053,266	.40			1,053,266	.39
TOTAL LITRES	261,170,177	100.00	8,789,592	100.00	269,959,769	100.00

T A B L E 13

TOTAL FLUID SALES APRIL 1982 - MARCH 1983 BY PRODUCTS IN LITRES

	Homo	2%	Skim	Total	Chocolate	Buttermilk	Egg Nog	Total	Cream	Total
Southern	5,992,043	14,025,914	639,319	20,657,276	1,105,120	178,860	54,308	1,338,288	554,631	22,550,195
Calgary	28,246,188	66,154,054	4,626,259	99,026,501	5,562,693	753,342	506,188	6,822,223	3,895,806	109,744,530
Edmonton	40,117,997	81,839,852	4,798,625	126,756,474	5,930,895	1,145,750	492,770	7,569,415	4,339,155	138,665,044
TOTAL	74,356,228	162,019,820	10,064,203	246,440,251	12,598,708	2,077,952	1,053,266	15,729,926	8,789,592	270,959,769

TABLE 14

MILK AND CREAM PRODUCTION BY SECTORS EXPRESSED IN KILOGRAMS OF BUTTERFAT OR EQUIVALENT

Fiscal Year - April - March

SECTOR	1982/83	1981/82	1980/81	1979/80	1978/79
* Fluid Milk	18,114,705	17,300,924	15,238,324	13,663,014	11,653,188
Industrial Milk	1,638.581	1,705,293	2,054,940	2,536,507	3,708,571
TOTAL MILK	19,753,286	19,006,217	17,293,264	16,199,621	15,361,759
INDUSTRIAL CREAM	1,506,802	1,700,167	2,002,980	2,324,965	2,784,197
TOTAL PRODUCTION	21,260,088	20,706,384	19,296,244	18,524,586	18,145,956
Percent Change	+2.67	+ 7.31	+ 4.17	+ 2.09	- 0.39

* (Converted to Butterfat using 3.60 kilograms of B.F. to one hectolitre)

T A B L E 15

GRADUATED ENTRY PLAN - STATISTICS

	1982	1981	1980	1979	1978	1977
Applications Received	106	317	208	289	190	113
Applications Accepted	42	181	143	223	142	76
Initial Allotment - Litres	7,245	30,985	25,230	37,765	23,760	12,805
2nd year daily allotment - Litres	15,030	12,155	18,880	11,880	6,410	4,105
3rd year daily allotment - Litres	12,290	18,880	11,880	6,410	4,160	5,570
TOTAL LITRES (By year)	34,565	62,020	55,990	56,055	34,330	22,480

Total Applications Accepted to Date (December 31, 1982) --- 930

Total Litres to Date 290,970